EPA 908-R-04-020

Spring 2004

Natural News

A Publication of The U.S. Environmental Protection Agency, Region 8 Ecosystem Protection Program

United States Environmental Protection Agency

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In this Issue:

Kim Jordan and Jeff Lebesch, Co-founders of the New Belgium Brewery

~ Photo by Hillary Mizia

Green Business Practices Make Good Business Sense

~Hillary Mizia, New Belgium Brewing Company

In a short-grass prairie not far from the Cache la Poudre River, in the greater Platte River Basin of EPA Region 8, sits a brewery. On 50 acres of abandoned land once used for sugar beet processing, New Belgium Brewing Company has turned a brownfield into a veritable gold mine of environmental exploration and success. From treating brewing process wastewater on-site to the suntubes that line the packaging hall, New Belgium has made a commitment to the environment every bit as strong as the Belgian style Tripple Ale it brews.

When the brewery first started in 1991 out of a basement in old town Fort Collins, co-founding husband and wife team Kim Jordan and Jeff Lebesch had every intention of making sure they went about their business with the environment in mind. With a small staff and an entrepreneurial spirit, they were able to create a corporate culture where "green" practices were as much a part of doing business as brewing beer. As the brewery grew, so did New Belgium's approach to being an environmental steward. In 2000, the first Core Values and Beliefs were put into print, with two of the ten values speaking to an environmental ethic: "Kindling social, environmental and cultural change as a business role model," and "Environmental Stewardship: minimizing resource consumption, maximizing energy efficiency and recycling." It is by living up to these Core Values and Beliefs that New Belgium has been able to continue the journey of running a profitable and environmentally responsible business.

Words and statements are wonderful tools, but most useful when they inspire action. In 2001 the engineering department was inspired by the numbers before them: New Belgium's brewing wastewater was going to cost millions of dollars a year if it was continually discharged to the city of Fort Collins. It was overloading their system, and in return New Belgium faced a hefty Plant Investment Fee. This prompted a discussion that has always been at the heart of what New Belgium does: how can we be more efficient in this situation? With a desire to save the company money, lessen the impact on the city's overloaded water treatment system, reduce the brewery's water consumption and be innovative in their environmental approach, New Belgium decided to implement on-site brewing process wastewater treatment (PWTP).

(Continued on page 2)

Completed in 2001, this plant not only treats the process water to below the required effluent levels, but also enables recovery of a significant amount of energy and reduces overall water usage. The layout of this system is essentially: 1) a screen to remove debris; 2) a three-stage anaerobic digester; 3) an aerobic lagoon, 4) a bio-filter, and 5) an aeration pond. Relying on the power of gravity to move the water from one step to the next, this process requires very little energy to run. The energy recovery, however, is enormous. The brewery process wastewater has a biochemical oxygen demand (BOD) of approximately 7500 mg/l, which is typical for the industry (compared to normal household wastewater having a BOD of approximately 200 mg/l). Biochemical oxygen demand is a measure of how much dissolved oxygen is being consumed as microbes break down organic matter. Aquatic life is dependent on having sufficient dissolved oxygen. This nutrient-rich water is ideal for a bio-digester, where microbes in the anaerobic environment thrive on this food source. As they eat, they produce a very clean biogas for New Belgium, approximately 85 percent methane, which is captured using a flexible hood that sits atop the anaerobic ponds. The gas is then pumped back to the brewery and used to run a cogeneration engine. The engine is tied into the brewery's automated system, turning on to offset peak loads for roughly five hours a day. While it's running, the cogeneration engine produces about 50 percent of the energy supply to the brewery, and in 2003 produced an overall 10 percent of the brewery's energy for the year, even though it had only been on-line for three months.

Once the wastewater is treated, it has a BOD of 30 mg/l or less. This makes it reusable for tasks like landscaping, evaporative cooling and cleaning. With an overall investment of about five million dollars into the PWTP, New Belgium is already seeing a payback in less than three years. These savings are realized as they stop paying all charges associated with discharging large volumes of water, lessen the amount of water being sent to the brewery (as reuse increases), and reduce the amount of energy purchased.

Previously, this wastewater was sent to the nearby City of Fort Collins Wastewater Treatment Plant, adding a significant load to the community treatment requirements, and considerable cost to the brewery. Avoiding these extra costs, generating electricity and reusing water all contribute to a payback considered successful by any business standards. New Belgium saw an opportunity to close a loop and exemplify environmental stewardship.

It is this underlying principle of *closing loops* that is at the heart of New Belgium's environmental stewardship. These loops come in the form of everything from the packaging materials that protect ingredients as they arrive at the brewery to the energy it takes to make the beer and the administrative resources used to run the show. By looking at the brewery in a process flow sense, it becomes clearer what loops can be closed. In other words, what can New Belgium do to reduce, reuse and recycle? It is a solid understanding that what is good for the planet is good for business that makes all the difference for a company like New Belgium Brewing.

For more information about New Belgium Brewing Company or to schedule a tour, please call **Hillary Mizia** at 303-279-0702, or **hmizia@newbelgium.com** Please visit **http://www.newbelgium.com** Or contact **George Parrish** at 303-312-7027 or **parrish.george@epa.gov**

Erosion Control is a Great Investment

~Steve Bubnick, EPA Region 8

Did you know that runoff from stormwater or snowmelt that carries sediment into our waterways is occurring at nearly the same rate it has for the past three decades? It is considered to be one of the greatest pollutant problems still damaging our waterways since the Clean Water Act was passed in 1972. A 1998 Report to Congress known as the 305(b) Report, in which each State reports to the EPA a list of surface waters that are impaired, lists sediment as the third leading cause of surface waters not meeting State water quality standards or beneficial uses. The Report states that 42 percent of those waters listed as impaired by the States were impaired by sediment.

Sediment entering our waterways (from construction, road building, timber harvesting, mining, and over-grazing of pasture lands) is introducing diseases, such as cryptosporidium and giardia, into our water every day. Certainly, erosion and sedimentation controls have improved over the past three decades, but land-disturbing activities are a part of our societal growth. There are other types of pollutants as well, like industrial chemicals, petrochemicals, metals, and pesticides that are introduced to our waters simply by allowing eroded sediment to run unimpeded into the streams and lakes.

One of the solutions to this problem is to implement sediment- and erosion-control measures that will actually reduce the amount of sediment entering our waterways through runoff. That is not as easy as it sounds.

Increased erosion and sedimentation cause treatment facility operators to spend millions of additional dollars each year to combat the fouling effects of silts and other fine materials coming through their system. This in turn causes treatment facility operators, often the municipal water suppliers, to charge users more for our household water at the tap. Fish and other aquatic life are also damaged by increased sediment in the water. There are several simple management practices that can be implemented for each kind of land-disturbing activity, and some are fairly inexpensive.

Installing hay bales can be a cheap and easy method of sediment control at construction. They require little time to install and very little attention once installed. If

properly placed, installed, sized, and maintained, they can remove more than 60 percent of the sediment introduced to them during a runoff event. However, if they are improperly placed, poorly installed, undersized, or neglected, they become a pile of organic matter that will capture little or no sediment brought to them. For comparison, according to a study conducted by Penn State University, a properly designed and constructed sediment trap can remove as much as 98 percent of the sediment introduced to it.

To properly install hay bales, one has to know several things: the size of the area draining to the bales, the volume of water expected during runoff events, the slope angle of the surface in your target area, and, the erodability of the soils (this may include grain-size distribution). Once this information is gathered, the size of the storage area needed can be determined. The idea of the hay bales is to capture and slow down the runoff, thereby allowing some settling to occur behind the bales, and, finally, to filter the water as it slowly passes through. However, if the bales are not placed tightly enough together, the unfiltered water will find the gap and flow between the bales. Or, if a row of bales is not wide enough to capture the entire width of the runoff, the unfiltered water will channel itself around the bales. If the bales are not properly staked and entrenched in place, the flow will undercut the bales, and they will be left high and dry and provide no sediment-control benefit.

Hay bales need to be inspected after every runoff event to ensure continued effectiveness. If a channel is forming around one end of the row of bales, or piping or undercutting appear to be occurring, the row of bales needs to be redesigned and re-installed. All damaged bales must also be replaced at those times, prior to the next runoff event. In some cases, a double row of bales is needed to prevent failure and allow for desired settling and filtering of sediment.

Even though the cost of hay bales may be around $4 per linear foot, the final cost of emplacement and maintenance may approach $6-$12 per linear foot. Once this price range is reached, the choice of other, more effective methods becomes feasible. EPA has a Menu of Recommended Best Management Practices (BMPs) that includes approximately 70 control measures. Hay bales are not included on the menu of recommended BMPs. Silt fences, straw wattles, filter berms made of gravel or brush, and sediment traps can all be installed and maintained for $6-$12 per linear foot and each method has been shown to be more effective in controlling sediment than hay bales.

Hay bales intended for water quality filtering. Improper use and lack of maintenance has caused them to fail.

~ Photo by Steve Bubnick

For more information, please contact **Steve Bubnick** at 303-312-6829, or **bubnick.steven@epa.gov**

Wetlands and West Nile Virus

~Paul McIver, EPA Region 8

Last year, the United States experienced an outbreak of West Nile Virus with more than 9000 cases nation-wide and almost 3000 West Nile cases in Colorado. Culex mosquitoes usually transmit the virus to humans from wild birds. The West Nile outbreak has raised concerns about wetlands being the source of mosquitoes that transmit the virus to humans. Wetlands that are functioning well control mosquitoes through fish, insects, frogs and birds that feed on them.

Mosquitoes that transmit West Nile tend to breed in any open container that is holding water, such as rain gutters, old tires, tin cans, etc. Wetlands that are partially filled in, polluted or altered in any way are more likely to be a breeding ground for mosquitoes. Wetlands that are degraded may lose many important functions and values including mosquito control.

For more information please contact the Center for Disease Control and Prevention, West Nile Virus at: **http://www.cdc.gov/ncidod.dvbid/westnile** State and Regional Information is available at: **http://westnilevirus.nbii.gov/states/index.html** For general information about wetlands see: **http://www.epa.gov/owow/wetlands**

National American Wetlands Month

~Paul McIver, EPA Region 8

May is the month to recognize and celebrate the many ways wetlands enrich our environment. EPA, in cooperation with other federal, State, local agencies and private organizations will be celebrating Wetlands Month this May. Events will be scheduled across the country to raise awareness of the importance of these ecosystems.

Wetlands are the vital link between land and water, where the flow of water and nutrients and the sun's energy

(Continued on page 4)

combine to produce highly productive ecosystems. Wetlands are an important wildlife habitat. They remove pollutants from water, reduce the impacts of flood waters, help recharge and discharge groundwater, and prevent erosion of stream banks. Wetlands are great for various types of recreation such as fishing, hunting, bird watching and photography. Many of these activities add to our economy. Take some time to find out what your community is planning to do to celebrate the importance of wetlands during the month of May.

For more information about wetlands, see EPA's web site at: **http://www.epa.gov/owow/wetlands** or call the Wetlands Helpline at 1-800-832-7828. You may also contact **Paul McIver**, the EPA Region 8 Wetlands Outreach Coordinator, for fact sheets, brochures and other information about wetlands at 303-312-6056 or **mciver.paul@epa.gov**

Earth Day

~Tim Rehder and Amanda Hasty, EPA Region 8

EPA Region 8 planned some big events for Earth Day 2004, on Thursday April 22. Various displays and booths were set up in the atrium of the EPA Region 8 office at 999th 18th Street in Denver. Building occupants were able to test their environmental IQ at the EPA Quiz Show, talk to an organic farmer about eating healthy/eating local, watch a model fuel cell car in operation, learn about xeriscaping, hear about renewable energy and the U.S. Department of Energy's Clean Cities Program, sign up for renewable energy from Xcel's Windsource, and listen to representatives from Tri-R Recycling. Event participants were also able to learn about environmentally-preferable office supplies, ask questions about a new Toyota hybrid car, learn about Denver's new recycled-water program, and discover how to obtain real-time air-quality data for the metro area.

This year was extra special since Kids to Work Day was paired with Earth Day. The event, "Today's Students are Tomorrow's Stewards," not only entertained EPA staff children ages third grade and older, but was also designed to educate attendees about the environment and the importance of reducing, reusing and recycling. For more information, please contact **Maureen Kiely** of the Environmental Information Service Center at 303-312-6262 or **kiely.maureen@epa.gov**

Natural News produced its first issue in April 1998. Special thanks to everyone who has contributed. We've produced 20 issues in the last six years. I will be moving on as the editor, and Darcy Campbell will be taking over as the new editor. Thank you for your support.

Stacey Eriksen

The EMAP Western Study in Region 8

~Karl Hermann, EPA Region 8

The primary objective of the Environmental Monitoring and Assessment Program's (EMAP) Western Study is to assess the ecological condition of streams and rivers in EPA Regions 8, 9, and 10. The multi-year study, started in 2000, includes a suite of biological, physical habitat, and chemical measurements taken at sampling sites determined through a probability-based survey design. The Region 8 states (CO, MT, ND, SD, UT, and WY) and the U.S. Geological Survey's Water Resources Division have performed the bulk of the sampling in the Region. The original plan was to complete the sampling in four years and to complete the assessment two years after that. Given several project modifications, the sampling efforts will continue into a fifth year, delaying completion of the project until late 2006. This summer will be the final sampling season for the EMAP Western Study. While most of the probability-based sampling sites have already been sampled, efforts this summer will complete the few remaining probability-based sites and focus on targeted reference sites. Measurements from the reference sites will be used to determine the thresholds for good, moderate, and poor condition classes of stream and river quality.

Several activities this year are moving the project towards success. EMAP participants were very involved in the Regional Bioassessment workshop held in Rapid City this past February. Presentations on indicators, physical habitat, reference sites, landscape indicators, and the Montana Northern Plains Streams study all provided a clearer picture of where the EMAP Western Study is headed and how it will be accomplished. Assessments for both the MT Northern Plains Streams and Southern Rockies Streams Regional Environmental Monitoring and Assessment Program (REMAP) studies are currently underway at the Region 8 office. These studies offer complete EMAP Western Study-like data sets. Both assessments will be completed this year and will serve as examples of how the more comprehensive regional report will be done. In early April, Tony Olsen, EPA Office of Research and Development in Corvallis, conducted a design and analysis workshop for EMAP participants in Region 8. The focus of the workshop was on how to make population estimates of ecological stream condition, given the sampling design and indicators. This fall, participant efforts will shift from monitoring to indicator development.

The plans for the Region 8 EMAP Assessment Report are progressing. In late 2006, the report will include chapters for assessment reporting units that include each of the six Region 8 states, many of the ecoregions, the Upper Missouri Basin, the Yellowstone Basin, and the Upper Missouri River and Reservoirs. For more information, contact: **Karl A. Hermann**, Regional Coordinator for EMAP at **hermann.karl@epa.gov** or 303-312-6628.

Publications and Information Available

2004 Call for Entries: National Award for Smart Growth Achievement. Applications are now being accepted for the third annual National Award for Smart Growth Achievement. Smart growth is development that serves the economy, the community and the environment. Smart growth development approaches have clear environmental benefits including improved air and water quality, greater preservation of critical habitat and open space, and more cleanup and re-use of brownfield sites.

Interested parties from urban, suburban, and rural areas are encouraged to submit applications for smart growth activities undertaken within the last five years. Successful applicants will incorporate smart growth principles to create places that respect community culture and the environment, foster economic development and promote a better quality of life. **Applications are due on June 1, 2004**. For more details about the National Award for Smart Growth Achievement, including an application packet, visit: **http://www.epa.gov/smartgrowth/awards.htm**

Smart Project Scorecard for Development Projects. Smart Project Scorecard (SPS) is a new tool to assist elected local officials, developers, investors, neighborhood groups and designers in making better project-level decisions that achieve Smart Growth objectives. The SPS can help evaluate whether a particular project is advancing the long-term viability of a community or creating more impacts with little overall benefit to existing and new citizens. The SPS was written in collaboration with the Congress for New Urbanism and EPA, and is available online as a PDF file at: **http://www.cnu.org/cnu_reports/Scorecard_exp.pdf**

Getting In Step Watershed Outreach Guides Available. EPA has announced a set of new resources designed to assist local governments, watershed groups, watershed management agencies, and others to plan and conduct effective watershed outreach campaigns: **Getting in Step: A Guide for Conducting Watershed Outreach Campaigns (Publication # EPA 841-B-03-002), and Getting in Step: A Video Guide for Conducting Watershed Outreach Campaigns (Publication # EPA 841-V-03-001)**. These two companion guides offer advice on how to effectively raise citizen awareness of nonpoint source pollution and to motivate individual behavior change to develop more water-friendly habits and practices that will lead to cleaner waters for our communities and our nation. For a free copy of this guide and its companion video, please contact the National Service Center for Environmental Publications at 1-800-490-9198 or **http://www.epa.gov/ncepihom** The book is also available as a PDF download at **http://www.epa.gov/nps/outreach.html**

Indiana Watershed Action Guide for putting together a Watershed Group and Action Plan. The guide in PDF format can be found at **http://www.in.gov/idem/water/planbr/wsm/wagi.pdf**

Listening to Watersheds –A Community-Based Approach to Watershed Protection. Place an order for "Listening to Watersheds" online from River Network at **http://www.rivernetwork.org/marketplace**

The Watershed & Water Quality Modeling Technical Support Center. The mission of the Center is to provide assistance to EPA Regions, State and Local Governments, and their contractors in the implementation of the Clean Water Act. The Center, which is part of EPA's Office of Research and Development (ORD), is committed to providing access to technically defensible tools and approaches that can be used in the development of Total Maximum Daily Loads (TMDLs), waste-load allocations, and watershed protection plans.

The Center provides a pathway for bringing ORD research efforts into "real world" application. An example of such an effort is the development of mercury TMDLs in the Southeastern United States, where information and techniques developed by ORD for the Mercury Report to Congress were used as the technical basis for TMDLs. The Center also provides a pathway for the needs of the regulatory community to help focus research and research plans for the future. Please visit **http://www.epa.gov/athens/wwqtsc/index.html**

A Clean Water State Revolving Loan Fund Brochure is located on the EPA homepage. See the back of the document to learn what may be funded for the 36 states that use it for Nonpoint Source Pollution projects. For a copy go to **http://www.epa.gov/owm/cwfinance/cwsrf/final.pdf** or to **http://www.epa.gov/OW-OWM.html/cwfinance/cwsrf/final.pdf**

Generic Ecological Risk Guidance Issued. EPA has issued general principles for risk assessors to use in selecting animal populations, plants, or environmental areas to determine the effects of chemicals, pollution, or other exposures. The document, *Generic Ecological Assessment Endpoints for Ecological Risk Assessment,* uses generic terms to describe the types of items a risk assessment might include. For example, it suggests risk assessors might look at "community and ecosystem-level endpoints." Wetlands, coral reefs, and other endangered environments are examples of what could be tracked, according to the guidance, which describes how a risk assessor might select appropriate organisms, populations, or parts of the environment for the situation being analyzed. The guidance and related information is available at **http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=55131**

Now Available! A New Guidance Tool to Monitor and Maintain Restoration Projects. A substantial amount of funding is allocated to stream restoration work. To ensure that these restoration projects are a success, monitoring and maintenance efforts are often needed beyond project implementation. Delaware Riverkeeper Network recently released the Adopt-A-Buffer Toolkit, Monitoring and Maintaining Restoration Projects, a 133-page manual

designed for local watershed groups, restoration practitioners and volunteer monitors who implement stream restoration projects and who are seeking inexpensive, effective volunteer-based monitoring techniques to assess restoration projects. Monitoring protocols included are a visual assessment (Restoration Project Survey), photo-monitoring, macroinvertebrate monitoring, bank pin and stream cross-section monitoring, and a wildlife survey.

A limited number of hard copies are available at no cost to local watershed groups. Others can obtain a hard copy for $15.00 plus shipping, or a CD for $5.00 by calling 215-369-1188, or download a free PDF version of the toolkit at the link below, scrolling down the page to "Adopt-A-Buffer Initiative" and clicking on "Adopt-A-Buffer Toolkit". **http://www.delawareriverkeeper.org/monitoring/monitoring.htm**

Protecting Urban Soil Quality. This 20-page document explains key principles for protecting soil quality during construction projects, and provides sample language for writing codes and specifications. **http://soils.usda.gov/sqi/soil_quality/land_management/index.html**

As a result of the National Center for Environmental Economics membership in the **Environmental Valuation Reference Inventory** (EVRI) "club," U.S. researchers and analysts can now access the inventory free of charge. EVRI is a searchable storehouse of empirical studies on the economic value of environmental benefits and human health effects. Developed several years ago by Environment Canada with support from EPA and others, EVRI is a general reference for researchers and policy analysts doing valuation work and is particularly useful for benefits transfer. The following link will enable you to get an account and access EVRI: **http://www.evri.ca/english/subsc.htm**

EPA Issues Final Action on Construction and Development Effluent Guideline. In a final action issued last week, EPA has opted to rely on the range of existing regulations and programs in place at the federal, state and local levels to control stormwater runoff from construction sites rather than establish a national effluent guideline at this time. Under the National Pollution Discharge Elimination System (NPDES) regulations for stormwater, states and municipalities are implementing significant new requirements to better address contaminated stormwater runoff from construction sites. **EPA has determined that additional regulation (the proposed effluent guideline) is not required at this time,** and that existing requirements at the federal, state, and local level will result in significant improvements in water quality and in the control of discharges of construction site stormwater runoff. Information about the action is available at: **http://www.epa.gov/guide/construction** Information about existing programs, requirements, and EPA support for state and local stormwater programs is available at: **http://www.epa.gov/npdes/stormwater**

Funding Opportunities

Applications Sought by EPA to Study Aquatic Ecosystem Response to Stressors. Grants to fund research into how aquatic ecosystems respond to different stressors are available. EPA is seeking proposals for the research grants and intends to fund about 10 projects, each for about $150,000 annually over three years. The awards are being made through the Science to Achieve Results (STAR) program. Research on the aquatic ecosystems should focus specifically on impacts from major stressors, both human-caused and natural. Human-caused stressors include the discharge of pollutants, while a severe storm is an example of a natural stressor. **Applications for the grants should be submitted by June 22**. Submissions can be submitted electronically at **http://www.fedgrants.gov** More information is available at **http://es.epa.gov/ncer/rfa/2004/2004_aqua_sys.html**

Request for Proposals for Conservation Innovation Grants. The Natural Resources Conservation Service (NRCS) has announced a request for proposals for the Conservation Innovation Grants competition. Applications should demonstrate the use of innovative technologies or innovative approaches, or both, to address a natural resource concern or concerns. **Applications are due May 28, 2004**. The five natural resource concerns for possible funding through Conservation Innovation Grants for Fiscal Year 2004 are: Water Resources, Soil Resources, Atmospheric Resources, Grazing Land and Forest Health, and Wildlife Habitat. Additional information on Conservation Innovation Grants is available at **http://www.nrcs.usda.gov/programs/cig**

Regional Applied Research Effort (RARE) Call for Project Proposals. Proposals are being solicited for the fiscal year (FY) 2005 Regional Applied Research Effort (RARE) grant program. The goals of the RARE Program are to: (1) provide the Regions with near-term research on high priority, Region-specific science needs, (2) improve collaboration among our partners at the states, tribes, other Regions and the EPA Office of Research and Development (ORD) Labs and Centers; and (3) build the foundation for future scientific interaction.

Projects may be written for one year of funding for $200,000 or for two years with total funding of $400,000. However, second year funding is not guaranteed. Within the next two months, there are plans to hold a workshop to discuss the RARE process in more detail, hear from those who are currently working on RARE projects and learn more about the ORD laboratories' and centers' technical capabilities. Project proposals must be submitted to Patti Lynne Tyler **tyler.patti@epa.gov** in electronic format by Tuesday, **June 1, 2004**. Project proposals should not exceed five pages.

Conferences and Training

EPA Community Involvement Conference and Training. The seventh annual EPA Community Involvement Conference and Training will be held **June 15-18, 2004**, in Denver, Colorado. The theme of this year's conference is, "Going the Extra Mile: Meeting Community Needs." Please visit **http://www.epancic.org/2004/overview.cfm**

If you are interested in the quality of western lakes and reservoirs, please come to **the Rocky Mountain Regional Lake and Reservoir Management Conference**, to be held on **May 12-14, 2004**, in Denver, Colorado at the Sheraton Denver West Hotel. The conference, titled: "*Lakes & Reservoirs; The Aquatic 'Gold' of the Western Landscape,*" is hosted by the Colorado Lake and Reservoir Management Association (CLRMA), with the support of the North American Lake Management Society (NALMS). The conference theme highlights the values that lakes and reservoirs have throughout the western landscape and the importance of managing these scarce resources wisely. More information can be found at **http://www.nalms.org/symposia/rockymountian/index.htm**

Making the Linkages Through The Use of Environmental Indicators. Mark your calendars for the EPA Regional/ORD Science Topic Workshop, "Making the Linkages Through the Use of Environmental Indicators – A Regional/State/Tribal and Office of Research and Development Science Topic Workshop on Indicators." The workshop is scheduled to be held in Kansas City, MO, the week of **May 17-21, 2004**, at the Embassy Suites Hotel - Kansas City Plaza. For more information, please contact **Brenda Groskinsky**, EPA Region 7 at 913-551-7188 or by email at **groskinsky.brenda@epa.gov**

Assessing Riparian Condition: Training Sessions for 2004
Denver/Castle Rock, Colorado: **June 22-23, 2004**
Durango, Colorado: **July 13-14, 2004**
Steamboat Springs, Colorado: **July 27-28, 2004**

The Colorado Riparian Training Cadre is inviting private landowners, state/federal/county employees, or other interested individuals in Colorado to attend a two-day training session on how to assess riparian/wetland conditions. A primary objective of this training is to develop a common vocabulary and understanding of riparian areas among people who work on the land. The session includes one day in a classroom setting and one day visiting streams in the field. There is no tuition, but the class size will be kept low (maximum of 30) to facilitate meaningful interaction. If you would like to register or find out more about these workshops, please contact: **Jay Thompson**, Colorado Riparian Cadre Coordinator at 303-239-3724, or **jay_thompson@co.blm.gov**

The Best Education Practices for Water Outreach Professionals will be held **June 2-4, 2004,** in Madison, Wisconsin. The symposium will engage national extension water quality coordinators, outreach professionals, and key stakeholders in fine-tuning Water Outreach National Facilitation Project products and marketing strategies. Symposium sessions will provide a mix of speakers, paper presentations, interactive events, poster sessions and networking opportunities.
http://www.uwex.edu/erc/waterbeps/symposium.html

In the western United States, 80 percent of all animal species are dependent on riparian habitat and about one third of all the federally-listed threatened and endangered species rely on water and riparian lands.

~ Kevin Coyle

River Network's 2004 National River Rally will be held **May 21-25** in Virginia, for more information please go to **http://www.rivernetwork.org/rally**

Tour the Colorado River: Know Where it Goes! The Colorado Foundation for Water Education (CFWE) presents its first Upper Colorado River Basin Tour, June 23-25. Often referred to as the "lifeline of the Southwest," the Colorado River supplies water to seven states, two countries and more than 25 million people. From Wyoming to Mexico, this watershed plays an integral role in the region's development and communities.

A variety of experts will share their viewpoints on Colorado's water issues including water supply, quality and conservation. Participants will get to know the river firsthand as they raft through Glenwood Springs and tour water storage facilities, water diversion projects and regions of critical water resources debate. The tour also includes educational activities highlighting recreational water use in the Vail area, as well as agricultural activities in the Grand Valley.

Cost for the trip is $495 for a single occupancy room and $395 for double occupancy room. The cost includes registration, transportation and lodging during the tour, meals, all activities and background materials. Scholarships are available for students, teachers, media members and non-profit organization members. For registration or scholarship details, contact CFWE at 303-377-4433, **youngk@cfwe.org** or visit **http://www.cfwe.org**

Land Trust Alliance Rally, October 28-31, 2004, Providence, Rhode Island. Concurrent workshop sessions will take place Saturday, October 30, and Sunday, October 31. The "Call for Presentations" form can be found at: **http://www.lta.org/training/rally.htm**

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Natural News

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If you have an article concerning ecosystem protection, community based environmental protection, or watersheds; we would like to hear from you!

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Ecosystem Stewardship on the web: http://www.epa.gov/region8/community_resources/steward/est.html

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